

REMARKS

This Response is submitted in reply to the Office Action dated February 18, 2010. Claims 44 to 86 are pending in the present application. Claims 44, 64, 74, 84 and 85 are in independent form. Claims 44 to 86 are hereby amended. Please charge Deposit Account No. 02-1818 for all payments due in connection with this Response.

No new matter has been added by such amendments. Support for these amendments can be found in the present application, for example, in at least paragraphs [0079], [0080], [0117] to [0123] and [0457] to [0468] of Applicant's Specification along with Figs. 4, 5, 10, 11, 30 and 31.

The Office Action rejected Claims 44 to 63 and 84 under §101. Specifically, page 2 of the Office Action stated:

[a]s per claim 44, "an information recording medium", the specification on page 24 discloses the recording medium can be a CD, FD, and MO all of these are software and software is non-statutory subject matter. The Applicant is urged to amend claim 44 to show how the information recording medium is executed within the apparatus.

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As per claim 84, "a computer program", is directed to non-statutory subject matter, because a computer program is software. The Applicant discloses on page 24 that the computer program is just a program. The Applicant is urged to amend claim 84 to show [how] the computer program is executed within the computer.

The Office Action rejected Claim 74 is rejected under §101. Specifically, page 2 of the Office Action stated:

[a]n example of a method claim that would not qualify as statutory process would be a claim that recited purely mental steps. Thus, to qualify as a §101 statutory process, the claim should positively recite the particular machine to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

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Here, applicant's method steps are not tied to a particular machine and do not perform a transform. Thus, the claims are non-statutory.

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The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 U.S.C. §101. *Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.*

Applicant respectfully disagrees with these rejections. Nonetheless, to advance the prosecution of this application, Applicant has amended independent Claims 44, 74 and 84 for clarity.

Amended independent Claim 44 is directed to an information recording medium that comprises: “a plurality of different content management units,” “a plurality of different individual unit keys,” and “a plurality of instructions which when executed by the information processing apparatus, cause the information processing apparatus, for one of the plurality of content management units, to...” Applicant respectfully submits that amended independent Claim 44 complies with 35 U.S.C. §101.

Amended independent Claim 74 is directed to an information processing method that comprises: “providing a plurality of different content management units,” and “causing a processor to execute a plurality of instructions to operate with the information processing apparatus to...” Applicant respectfully submits that amended independent Claim 74 complies with 35 U.S.C. §101.

Amended independent Claim 84 is directed to an information processing apparatus that comprises: “a processor” and “a memory device which stores: (a) data corresponding to a plurality of content management units... and (b) a plurality of instructions, which when executed by the processor, cause the processor to...” Applicant respectfully submits that amended independent Claim 84 complies with 35 U.S.C. §101.

The Office Action rejected Claims 64 to 69, 72 to 79 and 82 to 86 under 35 U.S.C. §102(e) as being anticipated by Benaloh (U.S. Patent Publication No. 2005/0065890). Applicant respectfully disagrees with this rejection.

Amended independent Claim 64 is directed to an information processing apparatus which comprises, among other elements, a unit key acquisition section configured to identify a content management unit from a plurality of different content management units stored in an information recording medium, wherein at least one of the plurality of content management units includes encryptable data corresponding to: (A) at least one content file that includes at least one of a data file reproducible by the information processing apparatus and a program file executable by the information processing apparatus; and (B) at least one of a content reproduction section

specification file, a content reproduction processing program file, an application index file, and an application execution file.

Benaloh discloses generating and encrypting content data structure packages and/or data trees (abstract). More specifically, Benaloh discloses:

[a]t this point, the unencrypted content has not been placed onto the medium that will ultimately carry it to the content player. All or part of the unencrypted content is partitioned into multiple partitions. The partitioning of the content can take place over the entire content, or just a portion. For example, an entire movie can be partitioned, or separate individual partitions can be defined within the body of the movie itself. In the movie embodiment, these partitions are also termed "clips". A clip or partition should be large enough to support a fingerprint or watermark therewithin. In the illustrated example, multiple partitions corresponding to the unencrypted content 800 are shown at 802, 804, 806, 808, and 810. Once the partitions have been defined one or more copies of each partition or clip is made to define multiple corresponding partition sets. Each of the individual partitions of a partition set is then separately and uniquely marked, 11 as by any suitable fingerprinting or watermarking technique. For example, in the illustrated figure, partition 802 has a corresponding partition 802a. Partition 802 is designated as "A" and partition 802a is designated as "A*" to indicate that the partitions are corresponding partitions that have been separately and uniquely marked with a different fingerprint or watermark. Together the individual partitions 802, 802a define a partition set 812. The same can be said of the remaining partitions. That is, each partition 804, 806, 808, and 810 has a corresponding respective partition 804a, 806a, 808a, and 810a. These corresponding partitions define partition sets 814, 816, 818, and 820 respectively. Each of the partitions within a partition set is uniquely and separately marked with a different fingerprint or watermark. It will be appreciated that any portion of the partition or clip can be fingerprinted. For example, with a movie, the audio and/or video bit stream could have a fingerprint inserted therein. Flexibility is provided in that any known or subsequently developed fingerprinting or watermarking technique can be utilized (paragraph [0061] of Benaloh) (emphasis added).

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After the partitions are defined and uniquely marked as described above, each partition of a partition set is encrypted with a different key (paragraph [0063] of Benaloh) (emphasis added).

* * *

Accordingly, at this point, all of the partitions have been uniquely marked (as by suitable fingerprinting or watermarking techniques) and encrypted with different keys. Next, individual unique key collections are defined in which in any one collection there appears one and only one key for one partition or clip in each partition set. In the illustrated example, no two key

collections are the same. Thus, if there are N original partitions or clips (before copying and marking takes place), each content player would receive a key collection comprising N keys. In this application, no two key collections are identical. Each key collection is then associated with a corresponding content player and encrypted with the content player's public device key. Recall that by encrypting the key collection with the content player's public device key, only the content player with the corresponding private device key can decrypt the encrypted key collection to access the encrypted content. When the content player accesses the encrypted key collection 11 and decrypts it using their private device key, they now have the corresponding keys to decrypt the encrypted partitions or clips. When the partitions or clips are decrypted, the content player is presented with a uniquely fingerprinted version of the original digital content. For purposes of this document, a key collection for a content player can be considered as a "content key" (paragraph [0065] of Benaloh) (emphasis added).

According to the above cited sections, Benaloh appears to: (i) partition unencrypted digital content into multiple partitions, (ii) fingerprint or watermark each of the partitions, and (iii) encrypt each of the partitions with a different key unique to that partition. Though the partitions of Benaloh are encrypted, the partitions differ from the content management units, as claimed, because at least one of the partitions of Benaloh does not include encryptable data corresponding to: (i) at least one content file that includes at least one of a data file reproducible by an information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file.

Thus, unlike amended independent Claim 64, Benaloh does not anticipate or render obvious an information processing apparatus that comprises, among other elements, a unit key acquisition section configured to identify a content management unit from a plurality of different content management units stored in an information recording medium, wherein at least one of the plurality of content management units includes encryptable data corresponding to: (i) at least one content file that includes at least one of a data file reproducible by the information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file.

Additionally, unlike amended independent Claim 64, Benaloh does not anticipate or render obvious an information processing apparatus that comprises, among other elements, a data processing section configured to execute a plurality of instructions, wherein when executed by the data processing section, the plurality of instructions cause the data processing section to operate with the unit key acquisition section to: (i) identify one of the content management units from the plurality of content management units; (ii) determine if the encryptable data of the identified content management unit is encrypted data; and (iii) if the encryptable data of the identified content management unit is encrypted data: (A) decrypt the encrypted data of said identified content management unit based on the acquired unit key associated with the identified content management unit; and (B) after decrypting the encrypted data of the identified content management unit, cause at least one of: (1) the data file of the content management unit to be reproduced; and (2) the program file of the content management unit to be executed.

For at least the above reasons, amended independent Claim 64 (and its respective dependent Claims 65 to 69, 72 and 73) is patentably distinguished over Benaloh and in condition for allowance.

Amended independent Claims 74, 84 and 85 each includes certain elements similar to certain elements of amended independent Claim 64. For reasons similar to the reasoning discussed above with respect to amended independent Claim 64, amended independent Claims 74, 84 and 85 (and their respective dependent claims) are each patentably distinguished over Benaloh.

Specifically, amended independent Claim 74 recites “providing a plurality of different, individual content management units, at least one of the content management units including encrypted data corresponding to: (i) the at least one content file, the content file including at least one of a data file reproducible by an information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file...” which Benaloh does not anticipate or render obvious for at least the above reasons.

Amended independent Claim 84 specifically recites “a memory device which stores: (a) data corresponding to a plurality of content management units, at least one of said content management units including encrypted data corresponding to: (i) the at least one content file, the

content file including at least one of a data file reproducible by an information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file..." which Benaloh does not anticipate or render obvious for at least the above reasons.

Amended independent Claim 85 specifically recites "a memory device which stores: (a) a plurality of unit keys, each of the unit keys corresponding to at least one of a plurality of content management units, the plurality of content management units being stored by an information recording medium operable with the reproducing apparatus, at least one of said content management units including encrypted data corresponding to: (i) the at least one content file, the content file including at least one of a data file reproducible by the reproducible apparatus and a program file executable by the reproducible apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file..." which Benaloh does not anticipate or render obvious for at least the above reasons.

The Office Action rejected Claims 44 to 54 under 35 U.S.C. §103(a) as being unpatentable over Kang et al. (U.S. Patent Publication No. 2008/0253734; "Kang") in view of Getsin et al. (U.S. Patent No. 6,529,949; "Getsin"). Applicant respectfully disagrees with this rejection.

Kang discloses a data recording and reproducing apparatus that supports multi-path recording reproduction and an information storage medium on which multi-path data is recorded. The information storage medium includes at least one clip that is a recording unit containing presentation data for respective paths. The presentation data in a selected path is continuously reproduced without changing paths and additional path information regarding a block of the path is recorded separately from the presentation data (abstract). More specifically, Kang discloses:

[s]ince the presentation data is bulky, it is compressed and stored (or transmitted) as compressed bit streams. The present invention discloses use of a clip as a recording unit of the presentation data and a PlayList and a PlayItem as reproduction units. With respect to the DVD, the clip conceptually corresponds to a recording cell that is a recording unit and the PlayList and the PlayItem correspond to a program and a reproducing cell that are reproduction units. In other words, an AV

stream is recorded in clip units on an information storage medium according to the present invention. In general, clips (i.e., clips of each path) are recorded in contiguous areas of the information storage medium. An AV stream is also compressed and recorded to reduce the size thereof. When reproducing a recorded clip, clip information recorded in clips is required to interpret the characteristics of compressed presentation data. The clip information specifies AV attributes of each clip and includes an entry point map that describes the positions of entry points enabling random access at predetermined intervals. In the case of the motion picture experts group (MPEG) video compression technique, an entry point is a group of pictures (GOP) header or an I picture that is used as a random access point. The entry point map is mainly used for detecting the position of data in a predetermine time zone after starting of data reproduction (paragraph [0040] of Kang).

Pages 6 and 7 of the Office Action state:

Kang et al. is silent on wherein the data file included in said content management unit is stored as encrypted data based on an individual unit key corresponding to said content management unit. Getsin et al. discloses wherein the data file (i.e. clip) included in said content management unit is stored as encrypted data based on an individual unit key corresponding to said content management unit (see col. 31, lines 1-11, 18-23).

* * *

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a data file in said content management unit is stored as encrypted data based on an individual unit key corresponding to said content management unit of Getsin with Kang, because video content is often stored on media such as CD or DVD (see col. 3, lines 27-29 of Getsin). Once a vendor has delivered such content to a customer the vendor loses control over product, and the product becomes hard to prevent a customer from copying (see col. 3, lines 31-35 of Getsin), the motivation to [store] a key corresponding to said content management unit is that there is a method that allows the vendor to supplement and/or modify the content and could allow the vendor to limit a client's access to certain portions of the locally stored content (see col. 3, lines 52-55 of Getsin).

Applicant respectfully disagrees and submits that, unlike amended independent Claim 44, the information recording medium resulting from the combination of Kang and Getsin does not disclose or render obvious: at least one of a plurality of different content management units that includes encryptable data corresponding to: (i) at least one content file, the content file including

at least one of a data file reproducible by an information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file. Additionally, unlike amended independent Claim 44, the combination of Kang and Getsin does not disclose or render obvious a plurality of instructions which when executed by the information processing apparatus, cause the information processing apparatus, for one of the plurality of content management units, to: (i) determine if the encryptable data of the content management unit is encrypted data; and (ii) if the encryptable data of the content management unit is encrypted data: (A) decrypt the encrypted data of the content management unit based on the unit key associated with the content management unit; and (B) after decrypting the encrypted data of the content management unit, cause at least one of: (1) the data file of the content management unit to be reproduced; and (2) the program file of the content management unit to be executed.

For at least the above reasons, amended independent Claim 44 (and its respective dependent Claims 45 to 54) is patentably distinguished over the combination of Kang and Getsin and in condition for allowance.

The Office Action rejected Claim 50 under 35 U.S.C. §103(a) as being unpatentable over Kang in view of Getsin as applied to claim 44 above, and further in view of Benaloh. Applicant respectfully disagrees with this rejection.

For at least the above reasons, Applicant respectfully submits that Benaloh does not remedy the combination of Kang and Getsin regarding the information recording medium of amended independent Claim 44. Accordingly, amended independent Claim 44 (and its respective dependent Claim 50) is patentably distinguished over the combination of Kang, Getsin and Benaloh. Claim 50 depends from amended independent Claim 44 and is allowable for the reasons given above with respect to amended independent Claim 44 and because of the additional features recited in this dependent claim.

The Office Action rejected Claims 55 to 63 under 35 U.S.C. §103(a) as being unpatentable over Kang in view of Getsin as applied to claim 44 above, and further in view of Kamperman et al. (U.S. Patent Publication No. 2006/0212400; "Kamperman"). Applicant respectfully disagrees with this rejection.

Kamperman discloses a system and method to issues digital rights which are signed in elementary pieces, rather than as a whole. That is, rather than issuing a right to play back a piece of content three times, the provider issues, for example, one right to play back the content in a particular authorized domain and two rights which may be transferred to other domains (abstract). More specifically, Kamperman discloses:

Content 130, which typically comprises things like music, songs, movies, TV programs, pictures, programming guide information, and the like, is received for example through a PC 106 or a residential gateway or set top box 101. The source could be a connection to a broadband cable network, an Internet connection, a satellite downlink and so on. The set top box 101, or any other device in the system 100, may comprise a storage medium S1 such as a suitably large hard disk, allowing the recording and later playback of received content. The storage S1 could be a Personal Digital Recorder (PDR) of some kind, for example a DVD+RW recorder, to which the set top box 101 is connected. Content can also be provided to the system 100 stored on a carrier 120 such as a Compact Disk (CD) or Digital Versatile Disk (DVD). The content can then be transferred over the network 110 to a sink for rendering (paragraph [0061] of Kamperman).

Applicant respectfully submits that, unlike amended independent Claim 44, the information recording medium resulting from the combination of Kang, Getsin and Kamperman does not disclose or render obvious: at least one of a plurality of different content management units that includes encryptable data corresponding to: (i) at least one content file, the content file including at least one of a data file reproducible by an information processing apparatus and a program file executable by the information processing apparatus; and (ii) at least one of a content reproduction section specification file, a content reproduction processing program file, an application index file, and an application execution file. Additionally, unlike amended independent Claim 44, the combination of Kang, Getsin and Kamperman does not disclose or render obvious a plurality of instructions which when executed by the information processing apparatus, cause the information processing apparatus, for one of the plurality of content management units, to: (i) determine if the encryptable data of the content management unit is encrypted data; and (ii) if the encryptable data of the content management unit is encrypted data: (A) decrypt the encrypted data of the content management unit based on the unit key associated with the content management unit; and (B) after decrypting the encrypted data of the content

management unit, cause at least one of: (1) the data file of the content management unit to be reproduced; and (2) the program file of the content management unit to be executed.

For at least the above reasons, Applicant respectfully submits that Kamperman does not remedy the combination of Kang and Getsin regarding the information recording medium of amended independent Claim 44. Accordingly, amended independent Claim 44 (and its respective dependent Claims 55 to 63) are each patentably distinguished over the combination of Kang, Getsin and Kamperman. Claims 55 to 63 depend from amended independent Claim 44 and are allowable for the reasons given above with respect to amended independent Claim 44 and because of the additional features recited in these dependent claims.

The Office Action rejected Claims 70, 71, 80 and 81 under 35 U.S.C. §103(a) as being unpatentable over Benaloh in view of Kamperman. Applicant respectfully disagrees with this rejection.

For at least the above reasons, Applicant respectfully submits that Kamperman does not remedy Benaloh regarding the information processing apparatus of either amended independent Claim 64 or the information processing method of amended independent Claim 74. Accordingly, amended independent Claims 64 and 74 (and their respective dependent Claims 70, 71, 80 and 81) are patentably distinguished over the combination of Benaloh and Kamperman. Claims 70, 71, 80 and 81 depend from either amended independent Claim 64 or amended independent Claim 74 and are allowable for the reasons given above with respect to these independent claims and because of the additional features recited in these dependent claims.


For at least the above reasons, amended independent Claims 44, 64, 74, 84 and 85 (and their respective dependent claims) are each patentably distinguished over the cited prior art references and in condition for allowance.

An earnest endeavor has been made to place this application in condition for formal allowance, and allowance is courteously solicited. If the Examiner has any questions regarding this Response, Applicant respectfully requests that the Examiner contact the undersigned.

Respectfully submitted,

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